

AUSTRALIAN COLEOPTERA.

NOTES AND NEW SPECIES. NO. IX.

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(Seven Text-figures.)

[Read 26th June, 1935.]

Family BUPRESTIDAE.

MELOBASIS PAVO, n. sp.

Elongate-ovate; whole upper surface and antennae peacock-blue, underside and legs brilliant coppery, abdomen very sparsely clad with silvery hair.

Head wider than apex of prothorax, eyes large and prominent, their inside margins parallel. Forehead slightly concave, finely punctate and sparsely pubescent. *Prothorax*: apex and base lightly bisinuate, anterior angles declivous, posterior subrectangular, disc with large, round, close punctures, a tendency to transverse rugosity towards sides, medial line indicated on basal third by a short carina with a lineate fovea behind this at base. *Scutellum* rather large, triangular and laevigate. *Elytra* subparallel for two-thirds of length, arcuately narrowed to apex, subapical margins strongly denticulate; sulcate-punctate, the sulci crenulated by punctures, intervals convex and punctate, those on lateral half closely, transversely rugose. *Prosternum* coarsely, and closely punctate, metasternum and abdomen more finely and less closely so. Apical segment truncate between two scarcely emarginate spines. *Dim.* 10.5 × 4 mm.

Hab.—N.W. Australia: Lake Austin. (H. W. Brown.)

A single ♀ example was sent on the same card as a ♂ of *Notobubastes costata* Cart., from which it differs in sculpture and apical structure, besides colour and form. The strongly sulcate elytra easily distinguish it from the other species in Group ii, Sect. B, of my Revision (*Trans. Ent. Soc. Lond.*, 1923). The pronotum is subopaque, the elytra very nitid, the underside brilliant. Type in Coll. Carter.

STIGMODERA (CASTLARINA) PROLONGATA, n. sp.

Elongate-parallel; subnitid and almost glabrous. Head, prothorax, underside and appendages very dark blue, elytra orange-red, with narrow postmedial fascia, and apex widely, blue-black, the fascia enlarged at suture and extending to margins.

Head moderately excavate and canaliculate, rather closely, subrugosely punctate. *Prothorax* unusually convex, apex and base lightly bisinuate, anterior angles depressed and obtuse, posterior acute and produced, basal triangular excisions well marked and emphasized by preceding fovea; widest near, or slightly in front of, middle, sides widely rounded, sinuate behind; disc with round, moderately close punctures, these closer at sides, a smooth area within basal border and some smooth rugae near apex. *Scutellum* longitudinally concave. *Elytra* three and a half times as long as prothorax, lightly widened at shoulder, very lightly compressed behind this, subparallel for the greater part, little

narrowed behind, apices with small, but distinct lunation, margins entire; striate-punctate, intervals roundly convex throughout, strial punctures coarse, intervals irregularly punctate and transversely rugulose in places. Sternal regions strongly, abdomen more finely, punctate. *Dim.* 17-20 × 6 mm.

Hab.—Western Australia: Cue. (H. W. Brown.)

Two examples, both, I think, ♀, were given to me by Mr. Brown, one of which has the abdomen unusually extended beyond the elytra, exposing two tergites. It may be distinguished amongst those of like pattern by its elongate, parallel form and wide prothorax, somewhat as in *S. dilatata* mihi. Holotype in Coll. Carter.

STIGMODERA ERASMA, n. sp. Fig. 1 (page 188).

Ovate-acuminate; head and pronotum brassy-bronze, the latter widely margined red, elytra dark metallic blue in ♂, green in ♀, with elongate medial area of each elytron and two wide postmedial spots yellow, and a wide, arcuate, subapical area red; prosternum and abdomen red, rest of underside blue or green—reddish between middle coxae; short, pale pubescence at sides and apex of abdomen, more evident on metasternum.

Head feebly concave and scarcely canaliculate between eyes, front very finely, apical half more distinctly and evenly punctulate. *Prothorax* longitudinally convex, laterally subplanate, widest near base, apex arcuate, anterior angles produced, rather wide and deflexed, sides well rounded at the widest part, thence strongly narrowed to apex and subsinuately so to base; base bisinuate, posterior angles acute; disc very closely, not coarsely, punctate, medial line only indicated by elongate fovea near base. *Elytra* rather flat and subexplanate, sides sinuate, margins of apical half finely denticulate, apices bispinose, with wide lunation, external spine very long, sutural very short; striate-punctate, striae clearly impressed, strial punctures round and regular, humeral regions and intervals strongly punctate, the two nearest suture strongly, the rest lightly, convex, except towards apex, where all subcarinate, the suture itself sharply carinate on apical half. *Metasternum* clearly, abdomen vaguely, punctate. *Dim.* 11-12 × 4.5 mm.

Hab.—Victoria: Swift's Creek, E. Gippsland. (F. E. Wilson.)

Mr. Wilson captured 3 examples, "from a little patch of moribund wattles", of this very distinct species, of which two are sent for description. Belonging to the *producta* group, it is easily distinguished from the others (Nos. 56-65 of my tabulation, *Aust. Zool.*, 1931) by its red margined prothorax and different elytral pattern. Holotype in Coll. Wilson. Paratype in Coll. Carter.

Named in honour of F. Erasmus Wilson, who has done so much to advance Entomology in Australia.

CISSEIS PATRICIA, n. sp.

Narrowly ovate; subnitid coppery-bronze above, darker bronze beneath. Sides of prothorax, the greater part of elytra, and the abdomen thickly clad with pale, recumbent pubescence.

Head closely punctate, with well marked medial depression and channel. *Prothorax*: apex rather strongly produced in middle, anterior angle depressed and wide, sides evenly rounded, lateral carinae parallel on basal half, divergent in front; base bisinuate, disc transversely striolate. *Elytra* lightly compressed behind shoulders, sides feebly sinuate, apical margins very finely denticulate, the discal pubescence thickened to form indistinct fasciae, postmedial and pre-

apical, elsewhere generally scattered, whole surface densely scalose-punctate. Underside nitid and punctate. *Dim.* 4-5 × 1.3-1.8 mm.

Hab.—Western Australia: Bunbury. (F. Lawson Whitlock.)

Fourteen examples examined showed no sexual coloration. Belonging to the group of small species that include *parva* Blkb., *minutissima* Thoms, and *pygmaea* Blkb., the species is differentiated from all by the combination of uniform colour, surface thinly veiled by a fine but close pubescence, that gives a somewhat opaque appearance. It shares with *pygmaea* Blkb. the general pubescent surface and rather strongly impressed head, but differs from that species in its much brighter colour and more elongate, attenuate form. It is named after Miss Whitlock, who helped to find it. Type series in Coll. Carter.

Family ELATERIDAE.

GLYPHEUS NIGRINUS, n. sp.

Oblong-ovate; nitid black above and below, clypeus and basal segment of antennae red, rest of antennae piceous, upper surface sparsely clad with long upright hair of pale colour.

Head sparsely and rather coarsely setigero-punctate, transversely concave within the clypeus. *Prothorax* widest behind middle, apical angles rounded off, sides bisinuate, feebly towards front, more strongly near posterior angles, these strongly carinate and feebly divaricate; disc with sparse setigerous punctures and short, lightly impressed, medial sulcus. *Elytra* of same width as prothorax at base, striate-punctate, intervals flat except at base, striae distinct, the punctures therein large and setiferous, the suture subcarinate near apex, epipleural fold angulate at shoulders; prosternum and abdomen finely punctate and pubescent, metasternum glabrous. *Dim.* 13 × 4 mm.

Hab.—N.S.W.: Dubbo. (D. Wearne.)

A single example given me recently comes nearest to *G. piceus* Cand., but clearly separated as follows:

<i>piceus.</i>	<i>nigrinus.</i>
<i>Colour:</i> rufo-piceous	black.
<i>Prothorax:</i> post. angles strongly divaricate	feebly divaricate.
disc rather flat	disc more convex.
medial sulcus well marked ...	sulcus short and obscure.

Holotype in Coll. Carter.

GLYPHEUS SUBFASCIATUS, n. sp.

Rufo-piceous; very nitid, head and prothorax red, the latter with four elongate, black markings (more distinct in the ♀), elytra rufo-piceous with four testaceous patches, two subhumeral, extending over three lateral intervals, two larger, subfasciate, postmedial, extending from margins to the 2nd sutural interval, apical area reddish; upper surface with long, upright, pale hair sparsely scattered: prosternum and legs red, rest of underside dark piceous, abdomen with close, recumbent hair.

Head punctate, clypeus widely elliptic, front with triangular depression, antennae slender, black, the basal segment red. *Prothorax* subequally wide for the greater part, anterior angles more acute than in *G. villosulus* Cand., posterior angles divaricate and carinate; disc smooth save for minute piliferous punctures, medial sulcus very fine and inconspicuous. *Elytra* of same width as prothorax at base, sharply navicular, all intervals convex at base, sutural intervals only convex to apex, the suture itself subcarinate, the others seriate punctate, the

punctures large and round on basal half, fine and irregularly placed towards apex; prosternum and metasternum very nitid and glabrous. *Dim.* 9–10 × 2½–3 mm.

Hab.—N.S.W.: Mt. Irvine, Blue Mts. (H. J. Carter.)

I took two examples (the sexes) in December, 1934, one by beating wattle, the other under bark. It is readily distinguished from *G. villosulus* Cand. by its smaller size, navicular form and testaceous markings. The ground colour of elytra is also variegated by the light and dark shades of piceous red. As noted by Candeze (under *G. lansbergei*), *villosulus* often presents "quatre taches d'une teinte rougeatre", but this is very different from the testaceous markings of *subfasciatus*. Holotype and allotype in Coll. Carter.

The species of the genus known to me differ only slightly in structure and sculpture, but may be readily diagnosed by the following tabulation. My specimens are from the following localities: *villosulus* Cand.: Victoria (Mt. Macedon, Warburton, Wooriwallock); *nigrinus*, n. sp.: N. S. Wales (Dubbo); *piceus* Cand.: N. S. Wales (Mt. Wilson, Blue Mts.); *sanguineus* Elst.: Queensland (National Park), N.S.W. (Dorrigo); *subfasciatus*, n. sp.: N. S. Wales (Mt. Irvine, Blue Mts.).

Table of *Glypheus*.

1. More or less concolorous	2
Bicolorous without defined pattern	<i>villosulus</i> Cand.
Bicolorous with defined pattern	4
2. Colour black	<i>nigrinus</i> , n. sp.
Colour rufo-piceous	3
3. Prothorax canaliculate, 13 mm. long	<i>piceus</i> Cand.
Prothorax non-canaliculate, 7 mm. long	* <i>alpinus</i> Blackb.
4. Elytra sanguineous with dark pattern	<i>sanguineus</i> Elst.
Elytra rufo-piceous with testaceous patches	<i>subfasciatus</i> , n. sp.
Elytra dark with red maculae	5
5. Elytra with 4 red maculae	* <i>decoratus</i> Cand.
Elytra with 1 large red macula	* <i>lansbergei</i> Cand.

* Species unknown to the author in Nature.

Family TENEBRIONIDAE.

Helaeus spencei Breme.—In these PROCEEDINGS, 1910, p. 90, I suggested that this was "possibly a var. of *H. kirbyi* Br.". Recently a specimen sent by Mr. Whitlock from Bunbury, W.A., seems to fit the description of *H. spencei* so closely that I am inclined to accept the distinctness of the species. Its form is exactly as in De Breme's figure (i.e., with much narrowed thorax and dilated elytra); and its dimensions almost exactly agree. The only discrepancy lies in the elytral clothing, said to be "poils fauves très fin, excessivement courts", whereas in the Bunbury example the hairs are long and brownish. There are, however, only 4 rows of these, at sides of disc, not, as in *perforatus* and *kirbyi*, over the whole surface.

Sympetes acutifrons Lea = *S. bicolor* Cart.—The latter name must be sunk. A long series taken by Mr. John Clark make this synonymy certain. The extreme forms present considerable differences in size and colour and even in the width of the foliate margins.

Saragus bicarinatus Champ.—I think a misprint occurred here; "bi" and "tri" are often confused in handwriting. The species has three clear carinae on each elytron, as stated in the author's excellent description and further shown in the figure (*Trans. Ent. Soc. Lond.*, 1894, p. 385).

SARAGUS OMEOENSIS, n. sp.

Ovate; nitid jet-black.

Head flat and almost impunctate, antennae with segment 3 as long as 4 and 5 combined, 8-10 increasingly transverse, 11 ovoid. *Prothorax* widest at base, apex arcuate-emarginate, anterior angles widely rounded off, sides roundly widened to near base, then a little narrowed to the obtuse posterior angles, base lightly bisinuate; foliate margins wide and subhorizontal (feebly concave towards front), with narrow reflexed border; disc moderately convex, minutely punctulate, medial sulcus clearly, not deeply, impressed, a small fovea near middle on each side of this. *Elytra* ovate, convex, widest at middle, foliate margins wide on basal half, narrowing towards apex, the reflexed border forming an increasing concavity to the apex; disc separated from foliation by row of large punctures; quadricostate, the suture also carinate, the first costa more nitid and prominent than the others, the 4th, along margin of disc, little raised; intervals between costae rugose and punctate, each containing four rows of rather large punctures, more or less interrupted by a longitudinal ridge midway between costae. *Prosternum* coarsely, abdomen finely, punctate. Hind tarsi with basal segment as long as the rest combined. *Dim.* 14 × 8½ mm.

Hab.—Victoria: Omeo. (F. E. Wilson.)

Two examples form another of Mr. Erasmus Wilson's discoveries. It is a very distinct species, differing from *S. confirmatus* Pasc. and *S. tricarinatus* Blkb. in its more nitid black, its wider foliation and the clearly punctate intervals. Only the first costa is at all prominent. Holotype in Coll. Wilson.

CORIPERA WILSONI, n. sp.

Oblong-ovate, flat; nitid dark bronze, glabrous, tarsi with yellow tomentum beneath.

Head with sparse, large, round punctures on forehead, epistoma laevigate, labrum prominent, antennae moniliform, 3 longer than 4, 11 narrowly ovate. *Prothorax*: apex arcuate-emarginate, anterior angles acute and prominent, base subtruncate, posterior angles a little less than 90°, and slightly produced outward, widest at middle, sides moderately rounded, sinuate behind, disc with a few large punctures irregularly disposed, medial line sharply cut throughout, subfoliate margins a little oblique and partly separated from disc by a short sulcus, a fine exterior border. *Scutellum* small, triangular. *Elytra* wider than prothorax at base, and less than twice as long, shoulders nearly squarely angulate, surface flat for the greater part, abruptly declivous behind; in part striate-punctate, in part irregularly embossed; three striae on each side of suture scarcely interrupted (only at one side, halfway, by a small transverse ruga), three scarcely defined lateral striae traceable; between lateral and sutural striae, smooth vermiculations enclose a few ocellate foveae and portions of punctured striae. *Epipleurae* with large sparse punctures, rest of underside sublaevigate. *Dim.* 12 × 5 mm.

Hab.—South Queensland: Eukey. (F. E. Wilson.)

A unique example is quite distinct from its congeners by its irregular elytral sculpture: in this respect it approaches, but differs from, *C. morleyana* mihi. Holotype in Coll. Wilson.

The following tabulation is an aid to the identification of the species.

Coripera.

- | | |
|-----------------------------------------------------------------------------------------------------|-------------------------|
| 1. Each elytron with 3 rows of ocellate foveae arranged symmetrically between geminate striae | 2 |
| Elytra not so | 5 |
| 2. Sides of prothorax abruptly narrowed before hind angle | <i>distinctus</i> Cart. |
| Sides of prothorax merely sinuate behind | 3 |

- 3. Elytra with pale margins, 8-10 mm. long 4
- Elytral margins concolorous, 12-15 mm. long *geminata* Lea.
- 4. Pronotum sublaevigate, medially sulcate throughout *mastersi* Macl.
- Pronotum rugose punctate, medial sulcus subobsolete *ocellata* Pasc.
- 5. Ocellate foveae irregularly disposed 6
- Elytra without ocellate foveae 8
- 6. Elytra with pale margins 7
- Elytral margins concolorous with disc *wilsoni*, n. sp.
- 7. Elytral surface embossed, a single stria each side of suture *bistriata* Cart.
- Elytral surface even, 3 striae each side of suture *morleyana* Cart.
- 8. Margins of pronotum lobate-crenate *adamsi* Lea.
- Margins of pronotum entire *deplanata* Boisd.

N.B.—*C. mastersi* Macl. has pale margins to elytra strongly marked (unmentioned in description), the pronotum, save for a few irregular punctures, very nitid and smooth; the elytral sculpture differs from that of *ocellata* Pasc. in having the striae clearly punctate and the ocellate intervals themselves containing interrupted striae. The colour is also a paler bronze than in Pascoe's species.

SEIROTRANA ANNULIPES, n. sp.

Brown-bronze, oblong-ovate, femora with a pale ring near (but not reaching) apex.

Head densely, subrugosely punctate, forehead with arcuate impression, antennae stout, segments 3-8 shortly ovate, 9-10 triangular, 11 very large, ovate. *Prothorax*: apex arcuate-emarginate, its angles prominent, acute, base truncate, its angles rectangular, sides rounded, widest at middle, evenly converging to apex, rather abruptly and sinuately narrowed towards base, margins clearly crenulate (except on posterior sinuation), disc densely strigose-punctate. *Elytra* wider than prothorax at base, striate-punctate, seriate punctures large and close, especially towards base and sides, intervals 3, 5, 7, 9 with well defined elongate nodules, the intermediate intervals narrower, with a few small pustules, the sutural interval with a few foveate punctures. *Epipleurae* with large, sparse punctures, prosternum sparsely punctate, abdomen with minute punctures. *Dim.* 11 × 4 mm.

Hab.—N. S. Wales: Hastings River district. (Carter and Davidson.)

Three examples are before me, one taken by myself in 1933, two by Mr. Harold Davidson in November, 1934. Rather close in form and upper surface to *S. mastersi* Macl., but a close examination, especially of the undersides, shows clear distinction of sculpture, besides those of size and colour, from the Gayndah species. The following comparison tabulates the chief differentiating characters.

<i>mastersi</i> Macl.	<i>annulipes</i> , n. sp.
<i>Colour</i> : pale, bright bronze	brownish-bronze.
<i>Antennae</i> yellow, slightly infusate at base	bronze.
<i>Femora</i> : apical 3rd yellow, tibiae also more or less pale.	with pale band near (but not including) apex, tibiae dark.
<i>Prosternum</i> finely transversely striolate-punctate at middle, with large, close punctures at sides.	sparsely punctate throughout.
<i>Abdomen</i> : basal segments with well defined longitudinal striae.	vaguely punctate.
<i>Dimensions</i> 8 × 3½ mm.	11 × 4 mm.

ADELIUM PORCATUM F., var. FULGENS, n. var.

There is a striking colour variety of this common species, having the upper surface a brilliant violet-bronze colour, for which I propose the name *fulgens*. I have two examples from Bellingen and Nambucca River respectively.

SEIROTRANA DAVIDSONI, n. sp.

Oblong-ovate; nitid coppery-bronze above, appendages and underside dark (almost black) bronze.

Head and *pronotum* closely and coarsely rugose-punctate, clypeus slightly reflexed, antennal segments shortly subconic, the three apical segments opaque-black. *Prothorax*: apex arcuate-emarginate, front angles finely rounded at tips, base truncate, sides well rounded, widest at middle, widely sinuate behind, angles subrectangular; margins with coarse irregular crenulations, chiefly on basal half; disc very coarsely punctate and rugose, with some small smooth areas near middle, sides and base with large subconfluent punctures. *Elytra* slightly wider than prothorax at base, epipleural fold evident on rounded humeri, narrow horizontal margin seen from above for one-third of the length; seriate-punctate, intervals (except the 7th) scarcely catenulate, the 3rd, 5th and 9th furnished with elongate humps of uneven size, becoming pustulose towards apex, those on the 7th subcostiform; intervals wide and sparsely bearing small nodules, irregularly placed; seriate punctures large and round on lateral half, smaller and somewhat elongate in the geminate rows next the suture. Underside finely striolate, the hind intercoxal process rectangular with rounded angles. *Dim.* 18-19 × 8 mm.

Hab.—N. S. Wales: Kindee, Hastings River district. (H. J. Davidson and H. J. Carter.)

Three examples taken in October in forest country. It can only be confused with *S. major* Bickb., from which it is separated by its much more nitid surface, more coarsely sculptured prothorax and different elytra. In *major* the catenulations are costiform, that on the 3rd interval almost continuous for a great part. Holotype in Coll. Carter.

Family CISTELIDAE.

MELAPS STRIATUS, n. sp.

Obovate; nitid black above and below, lightly pubescent; antennae and legs piceous, tarsi red.

Head sparsely punctate, epistoma subcircular, eyes round, prominent and widely separated, antennae rather stout, 3-8 subequal in length, segment 3 lineate, 4-8 gradually more widened at apex, 9-11 wanting. *Prothorax*: apex subtruncate, its angles depressed and blunt, base feebly bisinuate, with deep foveae near angles, these obtuse; widest in front of middle, sides thence very lightly rounded to base, strongly so to apex; disc with fine, shallow punctures, without medial line. *Scutellum* transverse, impunctate. *Elytra* convex, of same width as prothorax at base, widest behind middle; striate, the striae very fine but well marked, especially the two nearest suture, intervals flat, rather strongly punctate, punctures largest near base, gradually smaller towards apex, in places giving an appearance of seriate arrangement; lateral border not seen from above, lightly pubescent at sides and on apical declivity. *Sternal regions* coarsely, *abdomen* finely, punctate, the latter with sparse recumbent hair, femora swollen, tibiae stout, basal segment of hind tarsi as long as the rest combined. *Dim.* 8 × 3 mm.

Hab.—South Queensland: Eukey. (F. E. Wilson.)

A single example is near *M. victoriae* mihi in form and fine elytral striae, but it differs strongly in wider prothorax, pubescent surface and different elytral sculpture. Holotype in Coll. Wilson.

Family DASCILLIDAE.

Dascillus brevicornis Macl. cannot be retained under this genus, in which, *inter alia*, the palpi are subsecuriform or triangular at apex and the antennae filiform. The name *Notodascillus* is here proposed, and a second species is described below.

NOTODASCILLUS, n. gen.

Palpi subulate or narrowly ovoid. Antennal segments 3-10 serrate. Mandibles prominent, toothed. Prosternal process acute, narrow, separating the fore-coxae but not produced beyond them. Coxae widely open behind. Mesosternum and metasternum sulcate. Tarsi bilobed, 3rd and 4th segments enlarged and lamellate beneath.

Genotype, *Dascillus brevicornis* Macl.

N.B.—The unique type of *D. brevicornis* Macl. in the Australian Museum has lost its abdomen.

NOTODASCILLUS SUBLINEATUS, n. sp. Figure 2.

Oblong, subparallel; subnitid reddish-brown, head darker, upper surface strongly, lower lightly, pubescent.

Head: Eyes large, round and prominent, a triangular suture separating epistoma from forehead; antennae: segment 1 oval, 2 small, triangular, 3 larger than 2, serrate, 4-10 subequal, widely serrate externally, each forming an elongate triangle, lightly emarginate on inside, 11 rather longer than 10, cylindrical. Closely pubescent. *Prothorax* nearly twice as wide as long, widest at base, sides narrowing gently and arcuately to apex, here not as wide as head, apex truncate, base lightly bisinuate, anterior angles rounded off, posterior subrectangular, lateral margins entire, faintly recurved behind, disc rather flat, sulcate in middle, punctate and covered with pale, decumbent hair. *Scutellum* large, subcircular. *Elytra* wider than prothorax at base, twice as long as wide, shoulders bluntly rounded, sides subparallel, separately and rather sharply rounded at apex; margins a little explanate on apical half and strongly bristled. Striate-punctate, the striae punctures close and regular, intervals lightly convex, this emphasized by lines of pale tomentum along suture and alternate intervals 3, 5, 7, 9, 11, these connected in pairs towards apex, the six lines becoming three on apical declivity. Front coxae very close, but not contiguous, mesosternum narrowly, metasternum widely, sulcate; tibiae armed with two sharp spines at apex. Last segment of abdomen produced in middle into a subtriangular lobe. *Dim.* 10 × 3½ mm.

Hab.—Queensland: Bunya Mountain; N.S.W.: Hastings River (H. J. Carter), Upper Williams River (F. E. Wilson).

A fine species having the general facies of the European *Dascillus cervinus* L., not uncommon in this region. Holotype in Coll. Carter.

The two species described by me as *Dascillus serraticornis* and *D. oblongus* are also erroneously placed, but differ from *Notodascillus* in having the head vertical, the anterior part of the prothorax narrowed and convex, and in the narrower tarsi. They appear so near *Epilichas* White, that I would, for the present, include them in this genus. An example of *Epilichas flabellatus* Kiesw. has been sent me for examination. This differs from my species in having

pectinate antennae, but I am not sure if that distinction is generic; in certain families (e.g. Lampyridae) this distinction is merely sexual. Mr. F. H. Taylor, of the School of Tropical Medicine, has given me another species, certainly congeneric with the above two.

EPILICHAS VARIEGATUS, n. sp.

Elongate-ovate; opaque brown, pronotum and elytra variegated by patches of pale red pubescence; on the latter forming some 8 or 9 irregular and discontinuous fasciae. Legs and underside dark brown, antennae and tarsi paler.

Head: Eyes large and prominent, antennae long and finely serrate, segment 1 stout, 2 very small, 3-10 successively shorter, 11 lanceolate. *Prothorax*: apex rounded and narrower than head, sides rather abruptly widened behind middle, basal third of sides nearly straight; base strongly bisinuate, its margins finely serrulate; whole surface clothed with pubescence of two colours, the dark ground-colour having short velvety clothing, the reddish hair chiefly at sides, base and two vague elongate branches on disc, of longer texture; two round deep foveae near base, one near each basal sinuation. *Elytra* as wide as prothorax at junction, slightly widening at shoulders, thence lightly narrowed to apex; striate, the striae without distinct punctures, largely concealed by clothing, except near base and apex; intervals here, and on smooth areas between fasciae, wrinkled, the pale hair forming a variegated surface and longest at sides. On the hind tarsi the basal and claw segments of about equal length, segments clearly lamellate, but not enlarged. *Dim.* 11 × 4 mm.

Hab.—N. Queensland: Millaa-millaa (Mr. F. H. Taylor).

A single example is very distinct from the other two by its variegated surface, of which only small areas near base and apex of elytra are subnitid and free from pubescence. The two basal foveae on pronotum are notable but may be individual. The prothorax is more than usually narrowed and convex anteriorly. Holotype in Coll. Carter.

MACRODASCILLUS, n. gen.

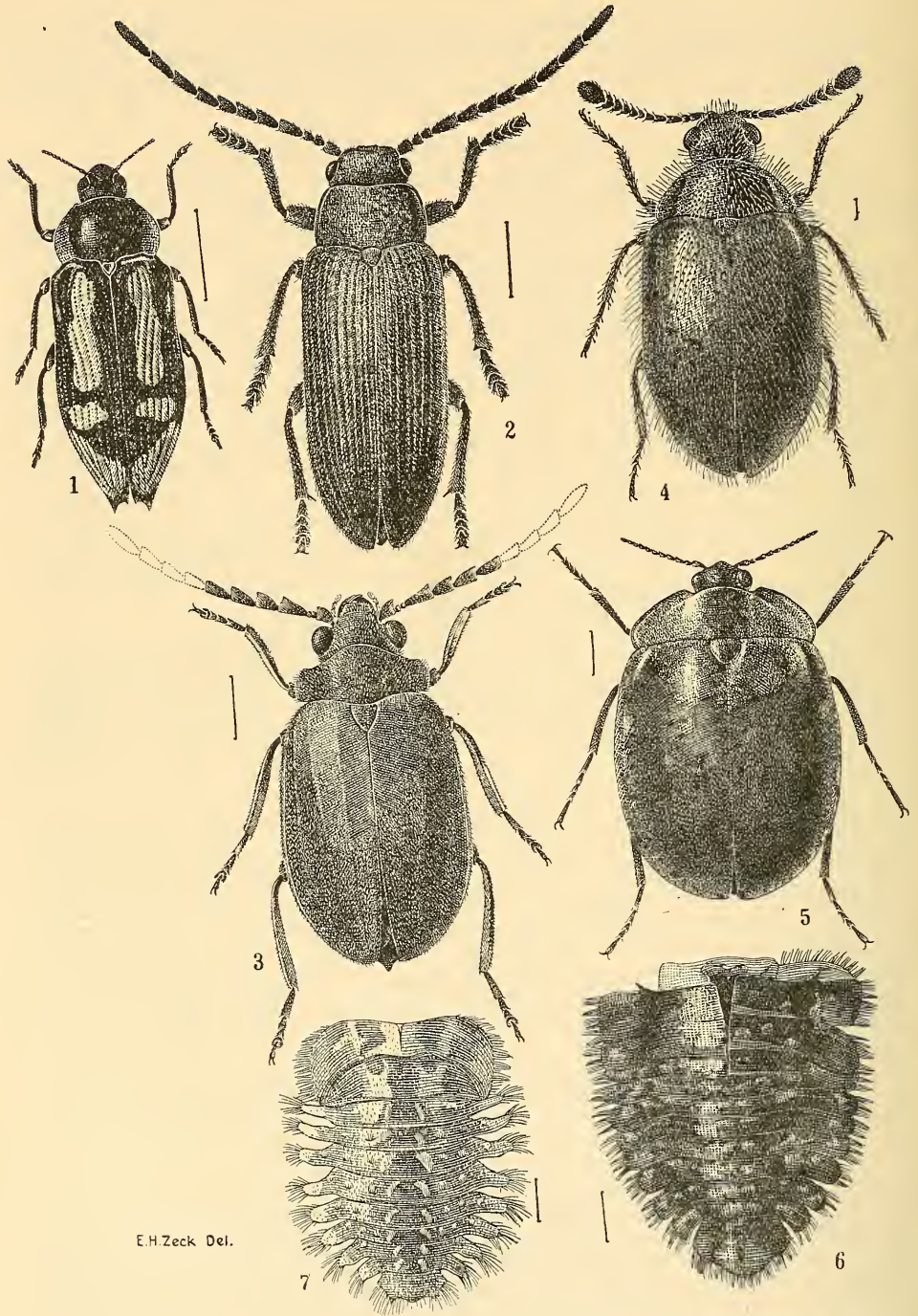
Body oval, convex. Head wide, hollowed beneath, eyes very prominent, clypeal suture not visible, mandibles acute and prominent, mentum triangular, maxillary palpi linear, apical segment more slender than the three preceding, labial palpi stout, apical segment subsecuriform, with lobate appendages at base; antennae long, extending beyond prothorax, dentate-serrate, segment 1 very wide, 2 and 3 very small, 2 bead-like, 3 cupuliform, 4-10 forming triangular serrations, 11 elongate-ovate. Prothoracic margins thin and sharply bordered, pronotum scarcely articulate with mesosternum. Hind coxae contiguous, its plates dilated; anterior and middle coxae approximate. Tarsi simple, slender, the penultimate segment only, lamellate.

A genus suggestive of *Dascillocyphon* Everts, from Sumatra, as figured by the author (*Tijdsch. v. Ent.*, 1909, p. 10), but differing very much in the structure of antennae and tarsi.

MACRODASCILLUS DENTICORNIS, n. sp. Fig. 3.

Oval, convex, nitid brownish-red above, subopaque beneath and with the appendages red; surface with sparse, short, recumbent pubescence.

Head: epistoma square, labrum prominent, minutely punctate. *Prothorax* very transverse ($1\frac{1}{2} \times 3\frac{3}{4}$ mm.), apex strongly bisinuate, medial lobe wide, angles emarginate but rounded at extremity, base widely bisinuate, angles obtuse, widest



E.H.Zeck Del.

- 1.—*Stigmodera (Castiarina) erasma*, n. sp. 2.—*Notodascillus sublineatus*, n. sp.
 3.—*Macrodascillus denticornis*, n. sp. 4.—*Trichelodes delicatula*, n. sp.
 5-7.—*Sclerocyphon irregularis*, n. sp. (6, larval exuvia; 7, pupal exuvia.)

near base, sides lightly rounded and converging to apex, disc smooth and obfuscate, minutely punctate. *Scutellum* large, triangular. *Elytra* obovate, humeri not prominent, everywhere with light, close punctures, each with three very lightly raised costae. Underside smooth and almost impunctate, a thin pubescence at margins of segments. Legs moderately long, hind tarsi with basal segment as long as rest combined. *Dim.* 10 × 5 mm.

Hab.—N.S.W.: Barrington Tops (T. G. Sloane).

A single example (? female) of this interesting species was taken in January, 1921, and given to me. The antennae are remarkable, in the small 2nd and 3rd segments between the very wide 1st and the large triangular 4th. On its original card one antenna was complete but was, unfortunately, broken in remounting. General facies (except for antennae and head) of *Macrohelodes*. Holotype in the National Museum, Melbourne.

MACROHELODES VITTATUS, n. sp.

Elliptic, moderately convex; nitid, head, pronotum, palpi and 7 apical segments of antennae black, pronotum with narrow band of yellow within margin, legs and basal segments of antennae red. *Elytra* infusate (reddish-brown) with 5 subcostate yellow vittae, the 1st sutural, the 5th marginal, the 2nd, 3rd and 4th equally spaced between these. Underside infusate reddish or black.

Head rather closely punctate, with two foveae symmetrically placed between eyes. *Pronotum* punctate with a tendency to longitudinal rugosity on basal half. *Elytra* strongly, irregularly punctate. *Metasternum* strongly punctate, abdomen finely pubescent. *Dim.* 8-9 × 4-4½ mm.

Hab.—N.S.W.: Bulli (H. J. Carter), Hazlebrook (J. Armstrong).

While aware of the great variability of colour and pattern in this genus, as pointed out by Lea (*Trans. Roy. Soc. S. Aust.*, 1919, p. 249), I consider the three examples I am describing distinct from the variable *crassus* Blkb. by the more elliptic, less convex form and more strongly punctured surface (especially of head and pronotum), as well as by the more explanate sides and less bisinuate base of the prothorax. Lea also refers to "three vague longitudinal pale stripes on each" (elytron) of *gravis* Blkb., but in *M. vittatus* there is no vagueness, but clearly marked, raised lines. My pair appear to be the sexes, the male being darker above and below than the female. Type in Coll. Carter.

TRICHELODES, n. gen. Dascillidarum.

Oval, convex. General form that of *Macrohelodes*.

Maxillary palpi with apical segment elongate-ovate, almost subulate. *Antennae*: segment 1 oval, 2-4 cylindric, 5-6 shorter and narrower than 4, 7-10 increasingly transverse, serrate on inside, 11 ovate, as long as 9-10 combined. *Legs* very slender, tarsi especially so, not apparently lobed beneath. *Head* vertical, eyes large and widely separated, insertion of antennae rather close. *Underside* somewhat as in *Macrohelodes*, fore coxae transverse and approximate, but mid and hind coxae more widely separated than in that genus.

TRICHELODES DELICATULA, n. sp. Fig. 4.

Nitid reddish-brown. *Prothorax* obconic, as wide as elytra at base and closely adapted to it, base lightly bisinuate, apex rounded, the medial part produced over head, its angles obsolete and deflexed, margins widely foliate behind, the foliation disappearing towards apex, but for the greater part separated from disc by a punctate sulcus; whole upper surface, except head and the middle regions

of pronotum and elytra, with long, upright, red bristles; disc of pronotum almost impunctate, margins setose, extreme border finely crenulate. *Elytra* distinctly gibbous at shoulders, the bristles clothing the sides and apical third, leaving a considerable area bare, this region finely, irregularly and sparsely punctate. Under-side, except the raised, nitid, central area of metasternum, with long reddish, decumbent hair. *Dim.* 2 mm. long.

Hab.—Queensland: Roma (F. H. Taylor).

I am indebted to Mr. Taylor, of the School of Tropical Medicine, for this interesting little novelty, unfortunately unique. Holotype in Coll. Carter.

For the excellent drawing of this species, as for the other figures illustrating this paper, I am indebted to Mr. E. H. Zeck, the foremost entomological artist in Australia.

SCLEROCYPHON Blkb.

A genus interesting biologically, since, though commonly found on foliage near streams, it has been found (larva, pupa and imago) existing under water, associated sometimes with Dryopidae on submerged logs. This association is intensified by a striking similarity of the larvae of the two families. Yet the imagines are widely different in form, being widely ovate, like a somewhat flattened *Paropsis*. The genotype is *S. maculatus* Blkb., described from the Victorian Alps. It is, however, widely spread in Queensland, New South Wales, Victoria, and Tasmania. I have examined 42 examples of it, including two so labelled in Blackburn's handwriting. The localities include Queensland National Park, Dorrigo, Sydney, Warburton, Kinglake (V.), S. Morang (V.) and Tasmania. In no case, nor in other species, have I seen the carina on the antepenultimate ventral segment mentioned by the author for a male character, though undoubted males were examined. Lea states that in *S. striatus* the 2nd and 3rd abdominal segments are feebly carinate. Lea described four species, *striatus*, *serratus*, *basicollis* from Tamworth, *aquaticus* from Tasmania. I have three examples, determined by Lea as *basicollis*, from the Williams River; a cotype of *aquaticus*, taken by myself when collecting with Lea at Waratah is also before me. I have not seen *striatus* or *serratus*. Lea says of *aquaticus*, "the junction of the prothorax with the scutellum and elytra is very finely serrated". This is true of all examples of the genus so far seen, but I cannot find the serration on the "apex of penultimate abdominal segment" in *basicollis* as in the description. But in this, as in other species, the apical margin is fringed with short hairs, which could easily be mistaken for serration except under the binocular microscope.

SCLEROCYPHON IRREGULARIS, n. sp. Figs. 5-7.

Widely oval, strongly convex; upper side reddish-brown, unequally clothed with fawn-coloured pubescence, underside reddish-brown, antennae and legs dark, tarsi red.

Head almost withdrawn within prothorax, eyes not prominent, antennae short, slender, its segments short, subequal and linear. *Prothorax* with medial third very convex, nitid and very minutely punctate, marginal two-thirds thickly pubescent. Apex strongly emarginate, its angles widely rounded off but prominent, base bisinuate, its margins, as also of the opposing elytra, finely denticulate, posterior angles subfalcate; widest at basal fourth, sides widely rounded here, thence arcuately converging to apex. Margins widely foliate. *Scutellum* widely, arcuately triangular. *Elytra* obovate, more or less strongly pubescent save for abraded raised areas, giving an uneven surface, humeral callus, a convexity near

each side of scutellum and the area of maximum convexity behind middle thus denuded and punctate; one or two subobsolete costae with transverse rugae present, otherwise displaying a mottled surface with a few white patches. Abdomen strongly punctate. *Dim.* 6-7 × 4½-5 mm.

Hab.—Victoria: Belgrave and Warburton (F. E. Wilson); N.S.W.: Dorrigo (W. Heron, in Coll. Carter).

Three examples before me differ from *aquaticus* Lea in larger size (especially width), greater convexity, irregularity of surface and the variegated colour. Holotype in Coll. Wilson.

N.B.—Mr. Wilson's example was selected for type since with it came both larva and pupa case, a rare capture deserving illustration.

SCLEROCYPHON BICOLOR, n. sp.

Ovate, convex; nitid-black above, prothorax with margins widely red, prosternum, abdomen, and antennae red, meso- and metasternum, also legs, black, tarsi red beneath, the whole lightly pubescent.

Head largely enclosed by emarginate prothorax, eyes little seen from above, antennae short, lineate, segments close. *Prothorax* widest at base, thence arcuately converging to apex, anterior angles obtuse, base bisinuate, posterior angles acute, surface finely punctate, pale pubescence on margins and base. *Scutellum* arcuate-triangular. *Elytra* closely fitting prothorax, at the junction both margins finely denticulate; obovate, margins narrowly foliate, humeral callus prominent, surface with subobsolete striation and some feebly raised lines (three traceable on one example), everywhere punctate, transverse rugae seen on raised lines. Sternal regions longitudinally strigose. *Dim.* 4-5 × 3-3.6 mm.

Hab.—N. Queensland: Kuranda (F. P. Dodd), in Coll. Carter, Endeavour River (French, Coll. National Museum).

Four examples examined can be readily distinguished by nitid black surface and comparatively sparse pubescence. The black medial area of the pronotum occupies about one-third of the surface; the symmetrically coloured bright red sides being quite distinct from the irregular pale patches sometimes found in *S. maculatus*. Type series, 3 on card, Holotype indicated by arrow, in National Museum.

Elodes olliffi Blkb.—This comes so close to *E. (Cyphon) australis* Erichs. that there is some doubt as to their distinction. The only separating characters in the descriptions lie in colour and dimensions: *australis* obscure testaceous, 2½ lines long; *olliffi* obscure fuscous, 3 lines long.

The species determined as *australis* Er. is slightly more ovate, with only the barest sign of longitudinal lines on some examples, the pronotum more or less infusate. Examples from Tasmania, Victoria and S.W. Australia. Five examples taken by myself in S.W. Australia are a little larger and more strongly punctured than others, but two examples in the Australian Museum from King George's Sound are identical with Tasmanian examples. The species determined as *E. olliffi* Blkb. is from New South Wales, Victoria and South Australia.

Elodes scalaris Lea is a large, elongate species, of which 23 examples are before me, ranging from a specimen in the South Australian Museum, labelled "sent by Lea as *H. scalaris*", dimensions 10 × 6 mm. This is without antennae and firmly glued to a card. Others range from 9 × 4½ to 7 × 3¾ mm. and are from Dorrigo, Blue Mts., and Evelyn (Vic.). The smaller examples approach *E. olliffi* Blkb. but are distinguished by the longer antennae and extremely fine surface punctures.

ELODES VARIEGATA, n. sp.

Oblong-obovate, rather flat, subnitid; head and pronotum reddish-brown, discal area infusate, elytra brown, irregularly variegated with pale pubescent areas. In the type (Warburton) example, these pale areas predominate and tend to form irregular, zig-zag fasciae on apical declivity. In a second example the dark areas predominate, the pubescence forming rounded spots in sutural region. Scutellum, underside, legs and antennae red, the second tending to fuscous at sides and apex.

Head rather wide, pubescent, eyes prominent, antennae long, segment 1 tumid, 2, 3 very short, 4-11 elongate, lineate, 4 slightly longer than rest. *Prothorax*: apex widely arcuate, its angles rounded, base bisinuate, posterior angles subrectangular, widest at base, sides thence arcuately narrowed to apex, margins widely foliate, disc pubescent, its surface a little uneven. *Scutellum* large, triangular. *Elytra* widest behind middle, wider than prothorax at base, finely punctate and transversely striolate, sculpture generally concealed by pubescence, three clearly elevated lines on each. Tibiae with a short spine at apex. *Dim.* 8 × 4 mm.

Hab.—Victoria: Warburton, Belgrave, Millgrove (F. E. Wilson); N.S.W.: Dorrigo (W. Heron in Coll. Carter).

Structurally similar to *E. olliffi* Blkb., it is readily recognizable by its large size and mottled surface. The Warburton example has been selected as Holotype since it is the only one having an undamaged antenna. Holotype in Coll. Wilson.

ELODES COSTELLIFERA, n. sp.

Oblong-oval, convex; black, subnitid, margins of prothorax and parts of legs reddish; sparsely pubescent.

Head densely pustulate and pubescent, antennae rather short, its segments sublineo-conic, much shorter than in *E. variegata*, 4-10 subequal, 11 ovate-lanceolate. *Prothorax*: apex feebly, base more strongly, bisinuate, all angles rounded off, anterior very widely so, widest at base, sides arcuately narrowed to front, margins widely foliate, disc closely and strongly punctate, punctures larger near base and margins, sparsely clad with silvery pubescence, with an arcuate transverse depression near middle, and a sulcus within the narrowly raised basal margin. *Scutellum* large, triangular and punctate. *Elytra* wider than prothorax at base, feebly widened behind middle, everywhere coarsely punctate, each with three raised lines, more evident than usual, these irregularly granulate, signs of striation near suture; bristly pubescent near margins, this more reclinate and silvery towards apex. Underside very finely punctate and pubescent. *Dim.* 7 × 4 mm.

Hab.—Victoria: Ferntree Gully (F. E. Wilson), Mt. Buffalo (Blackburn Coll. in S. Aust. Museum).

Shorter and more convex than preceding, and more coarsely sculptured than any species known to me. Both examples are male. Holotype in Coll. Wilson.

Var. or n. sp.—Another example from Ferntree Gully in Mr. Wilson's collection can only be distinguished by its red colour (somewhat infusate on pronotum, legs and antennae black).

ELODES DAVIDSONI, n. sp.

Upper surface, except extreme margins of prothorax, brownish-black, subnitid; prothorax with very narrow, pale red margins. A dense silvery pubescence on

sides and apex of elytra and sides of prothorax; underside and legs red, antennae with 3 basal segments yellow, the rest black.

Head much narrower than prothorax, labrum prominent, nearly square, eyes prominent and round. Antennae long and slender, segments 2-3 short, 4-5 stouter than the succeeding segments. *Prothorax*: apex widely, evenly arcuate, angles rounded off, base bisinuate, widest at base, here about three times as wide as the length; hind angles obtuse; surface, like that of two-thirds of elytra, delicately and closely punctulate, without foveae or medial line. *Scutellum* widely triangular. *Elytra* of same width as prothorax at base, sides nearly parallel for the greater part, each showing two light costae. *Dim.* $6 \times 2\frac{1}{2}$ mm.

Hab.—N. S. Wales: Hastings River district.

Two examples were taken by my companion on a recent trip (Oct., 1934). It is more parallel and less convex than *E. olliffi* Bickb., with even finer sculpture, besides the colour distinction. Holotype generously given me.

ELODES TIGRINA, n. sp.

Elongate-elliptic; red strongly suffused with black above, underside and legs red.

Head pubescent, eyes prominent, antennae long, slender and lineate, basal segments red, 4-11 infusate, 3-10 subequal, 11 slightly longer than 10. *Prothorax* with semicircular outline, a large, black macula at middle of base. Base sinuate, hind angles rectangular. *Scutellum* large, triangular, red. *Elytra* obovate, wider than prothorax at shoulders, widest behind middle; red, with irregular reticulation and suffusion black; the red markings forming irregular stripes at suture and towards sides, elsewhere appearing as spots, suggesting its name. Each elytron with two or three raised lines, the whole surface pubescent, strongly so at sides and apex. Underside glabrous, the female with apical segment of abdomen carinate. *Dim.* ♂, $6 \times 3\frac{1}{2}$ mm.; ♀, 8×4 mm.

Hab.—N.S.W.: Mt. Kosciusko (A. J. Nicholson).

A pair, taken *in cop.* by Dr. Nicholson, were in the Entomological Department of the University of Sydney. There is little difference, except in size, between the sexes. Holotype and Allotype in the Macleay Museum.